

7. ABSTRACT OF THE DISCLOSURE

The object of the invention is to provide an efficient encoding method for error correction coding for recording/reproducing information in high-density magnetic recording/reproduction apparatus. Based upon the principle of Turbo coding for powerful random error correction, this invention provides a practical encoding method for preventing the propagation of code errors from being caused by the failure of the error correction due to burst signal errors existing on actual reproduced signal and recovering reliable code data from this. In addition, the object is to reduce decoding time delay (latency) in iterative decoding for the error-correction and realize high-speed operation for error correction. To achieve the objects, an information code sequence is divided in units of code block and the random error-correction coding is applied to an individual code block. Concatenated coding with hard-decision error-correction code for compensating a burst error is applied.